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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,204

09/30/2003

Werner Schuhmann

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IP LEGAL DEPARTMENT  
TYCO FIRE & SECURITY SERVICES  
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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/675,204

Applicant(s)

SCHUHMANN ET AL.

Examiner

Jeremy A. Luks

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AM

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9/30/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/9/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Ford (5664015).

Ford describes a waterproof handset comprising an enclosure means (Figure 1, #16) having an audio means (74) allowing sound to pass (78) from said audio means through said enclosure means (16). Ford further describes a waterproofing means on said enclosure acting as a second membrane and protection means for said audio means (Col. 5 Lines 44-47), providing mechanical protection and allowing sound to pass from said audio means to said waterproofing means (See Figure 1; Col.5, Lines 23-47).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (5664015) in view of Banter (6512834).

With respect to Claims 1 and 13, Ford describes a speaker (74) within an enclosure (16) having a plurality of holes (78) allowing sound to pass through said enclosure (Figure 1, and supporting specification).

Ford fails to describe a foil attached within said enclosure a said foils perimeter, wherein said foil seals the speaker against intrusion by liquid.

Banter describes a foil membrane (Figure 2, #14) attached to an enclosure at said foil's perimeter whereby said foil seals a speaker from intrusion by liquid (Col. 6, Lines 6-32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the speaker enclosure of Ford by adding the liquid-proof foil membrane of Banter in order to effectively seal the speaker from liquid intrusion while not compromising sound quality as would happen using a non-sound transparent material.

With respect to Claim 2, as applied to Claim 1 above, Banter describes a foil membrane (14) acting as a second membrane for a speaker (13) (Figure 2, and supporting specification).

With respect to Claim 3, as applied to Claim 1 above, Banter describes said foil in a round shape (See Figure 3, #20) and being glued with adhesive along the outer perimeter (22) (See Col. 7, Lines 49-53). Banter further describes that the bonded area be minimized depending on the size and acoustical requirements of the assembly (See Col. 8, Lines 9-14).

With respect to Claim 4, as applied to Claim 1 above, Ford describes an enclosure having about 30 holes (See Figure 1, #78).

Ford fails to specify a diameter of said holes, however, it would have been obvious to one of ordinary skill in the art at the time of the invention to make said holes about 1 mm in diameter in order to keep drops of water from entering said holes.

5. Claims 5, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (5664015) in view of Banter (6512834), and in further view of Hori (JP02002159082A).

Ford and Banter are relied upon for the reasons and disclosures set fourth above.

Ford and Banter fail to describe a protection plate comprising a plurality of holes that allow the passage of sound, wherein said holes are offset from the holes in said enclosure. Ford and Banter further fail to describe said protection plate serving as a magnetic shield.

Hori describes a protective plate serving as a magnetic shield (28) comprising a plurality of holes (28A) that allows the passage of sound (See Figure 5 and supporting abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the speaker enclosure apparatus of Ford and Banter with the magnetically shielded protection plate comprising a plurality of holes described by Hori in order to better mechanically protect the speaker's components, as well as protecting the user in the event of an electrical surge. Further, it would have been obvious to offset the plurality of holes of the protective plate from the enclosure in order to better protect the speaker from liquid intrusion.

6. Claims 7,8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (5664015) in view of Banter (6512834) and in further view of Butler (6288866).

Ford and Banter are relied upon for the reasons and disclosures set forth above.

Ford and Banter fail to describe a second cover having at least one boss which is inserted through a hole in a printed circuit board (PCB) and the boss having a deformable rib. Further, Ford and Banter fail to describe the PCB deforming said rib when the PCB is pressed with the first cover against the rib.

Butler describes a second cover (36) having a boss (42) inserted through a hole in a PCB (14) where said boss (42) having a deformable rib (32) being deformed when said PCB (14) is pressed with the first cover (12) against said rib (32) (See Figure 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to assemble the apparatus of Ford and Banter using said boss and rib configuration described by Butler in order to protect the internal components from vibrations or impact.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (5664015) in view of Banter (6512834) and Hori (JP2000356363), and further in view of Butler (6288866).

Ford, Banter and Hori are relied upon for the reasons and disclosures set forth above.

Ford, Banter and Hori fail to describe a first and second cover where the second cover having at least one boss that is inserted through a hole of a PCB whereby said boss having at least one deformable rib that is deformed when the PCB is pressed with the first cover against the rib until said first cover meets the boss.

Butler describes a first (12) and second (36) cover where the second cover (36) having at least one boss (42) that is inserted through a hole of a PCB (14) whereby said boss (42) having at least one deformable rib (32) that is deformed when the PCB (14) is pressed with the first cover (12) against the rib (32) until said first cover meets the boss (42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the speaker enclosure apparatus of Ford, Banter and Hori with the deformable boss and rib configuration of Butler in order to secure the internal

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components of the apparatus to the first and second covers in a simple and effective manner.

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent arts of record to waterproof handsets are disclosed in

PTO-892

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy A. Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeremy Luks  
Patent Examiner

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**Edgardo San Martin**  
**Primary Patent Examiner**